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NATIONAL AMBIENT AIR QUALITY STANDARDS

Implementation Plans

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 51]

[FRL 418-6]

MAINTENANCE OF NATIONAL AMBIENT AIR QUALITY STANDARDS

Requirements for Preparation, Adoption, and Submittal of Implementation Plans

INTRODUCTION

The regulations proposed below pertain to the analysis and development of plans for air quality maintenance areas (AQMAs), required under 40 CFR 51.12. The regulations specify the minimum requirements for the form and content of the AQMA analyses and plans and attainment plan revisions required in AQMAs.

Briefly, the process for developing a maintenance plan consists of the following tasks:

Projecting emissions into the future.

Allocating emissions according to estimated projections of location.

Calculating air quality resulting from the future emission pattern.

Developing a control strategy if needed to maintain the national ambient air quality standards.

Adopting regulations to make the control strategy enforceable.

The proposed regulations set up the technical and procedural framework for the States to develop revisions to their implementation plans to cover maintenance. The regulations leave entirely in the hands of the States the choice of measures that are needed to maintain the national air quality standards. EPA intends to be flexible with regard to these plans to allow maximum consideration of varying local conditions.

BACKGROUND

On May 31, 1972 (37 FR 10842), the Administrator of the Environmental Protection Agency published his initial approvals and disapprovals of State implementation plans to attain and maintain the national ambient air quality standards (NAAQSs). These plans were submitted to EPA pursuant to section 110 of the Clean Air Act, as amended in 1970. These actions of approval and disapproval were codified in 40 CFR part 52. Thereafter, the Natural Resources Defense Council, Inc. (NRDC) and various other petitioners challenged the Administrator's approvals in the United States Court of Appeals for the District of Columbia Circuit on several grounds, including the contention that the plans approved were not adequate to ensure maintenance of the NAAQSs once they were attained.

Regarding this issue, the Court ruled in NRDC v. EPA, 475 F.2d 968 (D.C. Cir. 1973) that the record before the court was insufficient to ascertain whether the Administrator had made a State-by-State determination as to the adequacy of the maintenance provisions in the State plans. Accordingly, the Court ordered the Administrator to review these provisions and disapprove those plans that did not (1) contain measures necessary to ensure maintenance of the primary standards after the statutory attainment date and (2) analyze maintenance in a manner consistent with the Administrator's regulations.

Upon further review, the Administrator determined that no State plan contained all the measures necessary to ensure maintenance of the standards and that no plan had adequately analyzed the impact of growth on air quality maintenance for any significant period of time into the future. Accordingly, on March 8, 1973 (38 FR 6279), the Administrator disapproved all State plans with respect to maintenance of standards.

In the notice of disapproval, the Administrator noted that several mechanisms already available under the Act and in regulations would serve to mitigate the impact of overall community growth on air quality maintenance. These measures included: (1) review of new and modified stationary sources and prevention of their construction or modification if air quality standards will be violated, (2) new source performance standards promulgated under section 111 of the Act, and (3) standards for emissions from new motor vehicles promulgated under section 202 of the Act.

The Administrator determined, however, that such measures alone would not be adequate to ensure maintenance, particularly for pollutants resulting from general urban and commercial development. Accordingly, the Administrator determined that the new source review procedures then existing should be expanded.

On April 18, 1973 (38 FR 9599), this expanded scope of new source review was proposed by the Administrator. In the preamble to the proposed amendments, the Administrator called attention to the importance of analyzing the general growth of population, industrial activity, and mobile sources in relation to regional air quality. The Administrator did not propose at that time to require such analysis but urged that States consider the use of such procedures. A number of comments were received on the proposal urging that such analysis be required on the grounds that preconstruction review of relatively larger individual sources on a source-by-source basis could not adequately deal with generalized growth and its impact on regional air quality.

Consequently, the Administrator determined in concurrence with public comments that, in addition to review of new and modified sources, comprehensive growth analyses and, where shown necessary, plan revisions should be specifically required of the States in order to make the maintenance provisions of implementation plans fully acceptable. On June 18, 1973 (38 FR 15834), the Administrator promulgated additional regulations amending 40 CFR 51.12, which regulations implement this determination.

40 CFR 51.12, as amended on June 18, 1973, and subsequently amended on May 8, 1974 (39 FR 16343), requires in part that State implementation plans identify by May 10, 1974, areas that may, as a consequence of current air quality and/or the projected growth rate of the area, have the potential for exceeding any national standard within the subsequent 10-year period. The Administrator is to publish, based upon the information submitted by the States, a list of potential problem areas that must then be analyzed in more detail by the States. By June 18, 1975, each State was required to submit a detailed analysis of the impact on air quality of projected growth in each potential problem area designated by the Administrator. Where the analysis indicated that an area will not maintain the primary and secondary NAAQSs, once attained, for the following 10 years, the State was to have also submitted a plan containing measures to ensure the maintenance of the NAAQS during the ensuing 10-year period. Furthermore, to ensure the continued maintenance of the national standards, States would have had to perform the area identification-analysis-plan development process at least every 5 years under the current regulations.

In the FEDERAL REGISTER of June 19, 1975 (40 FR 25814), the Administrator rescinded the June 18, 1975, date for submission of the analyses and plans for the problem areas. Instead of specifying a new submission date applicable to all analyses and plans in that action, the Administrator will specify: (1) those areas that need plans from among those he has or will have identified as problem areas and (2) individual dates for submission of each area's analysis and plan depending on the individual needs of each area.

As expeditiously as practicable but no later than July 1, 1976, the Administrator will determine which areas need plan revisions to provide for the maintenance of the national standards. The proposed regulations below would require States to submit AQMA analyses by April 1, 1976, but the Administrator could modify that date. This would allow the Administrator to make his determination by July 1, 1976.

Although dates for submission of AQMA plans will vary, the Administrator will require that the plan be submitted as expeditiously as practicable for areas that will fail to maintain NAAQSs in the near future; for areas that will not fail to maintain standards until the more distant future, the Administrator will generally require the AQMA plan to be submitted at least 3 to 5 years before measures are actually needed to maintain the standards.

The maintenance revision must include all regulations that are necessary to be implemented within the time period that is covered by the maintenance revision in order to be effective in preventing a standards violation at some time in the future. That is, if the 10 year air quality analysis reveals maintenance problems, and to solve the problem requires an action 7 years in advance, then the necessary action must be in the first maintenance revision. No matter how many years the revision covers, the necessary

lead time from action to prevention of air quality standards violation must be considered.

The States will have to identify, at least every 5 years, those areas that may fail to maintain the national standards. Under the existing regulations, EPA was to have identified new AQMAs based upon information submitted by the States. As discussed below, the proposed regulation will change this procedure so that no new AQMAs will be identified; rather, plan revisions to ensure maintenance of the standards will be called for under the usual plan revision procedures.

On January 15, 1974, EPA issued to the States *Guidelines for Designation of Air Quality Maintenance Areas* (OAQPS No. 1.2–016), in which techniques for the States to use in identifying potential problem areas were described. Opportunity for public inspection of this document was announced in the FEDERAL REGISTER of February 25, 1974 (39 FR 7196). These guidelines specified that the States should consider, as a minimum, all Standard Metropolitan Statistical Areas (SMSAs).

The Administrator identified in the FEDERAL REGISTER a list of these areas, herein referred to as "air quality maintenance areas" (AQMAs), in three actions: the first on April 29, 1975 (39 FR 18726), the second on June 2, 1975 (40 FR 23746), and the third on September 9, 1975 (40 FR 41941). In these three actions the Administrator identified a total of 168 AQMAs for at least one pollutant. Of these, he identified 159 with regard to particulate matter, 61 for sulfur dioxide, 24 for carbon monoxide, 49 for photochemical oxidants, and 5 for nitrogen dioxide.

GUIDELINES DOCUMENTS

To provide guidance to the States on techniques for analyzing the air quality impact of growth and development and for developing air quality maintenance plans, the Administrator has published *Guidelines for Air Quality Maintenance Planning and Analysis*. Titles and brief descriptions of the volumes in this guidelines series follow:

Volume 1: Designation of Air Quality Maintenance Areas—This document was originally published in January, 1974, as *Guidelines for Designation of Air Quality Maintenance Areas*, OAQPS No. 1.2–016. This volume contains a description of the minimum requirements and procedures for identifying AQMAs.

Volume 2: Plan Preparation—This volume provides a general overview of the AQMA planning process and presents information and guidance in preparing the AQMA plan. It describes tasks that should be undertaken, such as intergovernmental cooperation and coordination, review of existing data and resources, AQMA analysis, maintenance strategy development, and AQMA plan preparation and assembly.

Volume 3: Control Strategies—This volume describes the various maintenance measures that may be used as part of a maintenance strategy. The listing of measures is not exhaustive but does provide those measures that appear to have broad application to all States. States are encouraged to develop additional measures that may be required for the air quality maintenance problems peculiar to their areas of responsibility.

Volume 4: Land Use and Transportation Considerations—This volume describes the relationship of air quality maintenance to comprehensive planning and elaborates on items presented in Volume 3.

Volume 5: Case Studies in Plan Development—This volume describes the experiences of four EPA contractors who developed trial AQMA plans for Denver, San Diego, St. Louis, and Baltimore. Problems and solutions are included along with illustrative portions of trial plans.

Volume 6: Overview of Air Quality Maintenance Area Analysis—This document presents an overview of Guideline Volumes 7 through 12 and discusses ways to enhance the analytical capabilities of local agencies, the role of analysis in AQMA plan development, and the advantages of including provisions for augmenting analytical capabilities in an AQMA.

Volume 7: Projecting County Emissions—This document presents a three-step procedure to project future emissions on a county-wide basis. Step 1 is the determination of base period emissions through a systematized routine updating procedure of the National Emission Data System (NEDS) and other emission data; step 2 is a projection of economic and demographic growth; and step 3 is an estimation and projection of relationships between economic/demographic parameters and emissions.

Volume 8: Computer-Assisted Area Source Emissions Gridding Procedure (CAASE)—This document is a user's manual for a computerized technique that apportions area source emissions within a county. The apportionment is based on population data from U.S. Census Bureau tapes.

Volume 9: Evaluating Indirect Sources—This volume presents methodologies for estimating carbon monoxide (CO) concentrations in the vicinity of indirect sources. Simple methods are presented for the following kinds of indirect sources: highways, airports, regional shopping centers, sports complexes, municipal parking lots, amusement parks, and recreational areas. More detailed methodologies for estimating emissions from indirect sources and the resulting impact on air quality are presented in appendices to this volume.

Volume 10: Reviewing New Stationary Sources—This document describes methods for estimating the impact of point sources on ground-level concentrations of stable pollutants after certain design parameters are identified and the source's location is known. Concentrations estimated using these guidelines would be superimposed over the general background concentrations (actual or estimated) to determine whether the proposed new source is likely to result in an unacceptable threat to air quality standards.

Volume 11: Air Quality Monitoring and Data Analysis—This volume contains infomation on the following eight areas:

Air quality monitoring network design and instrument siting;
Acceptable air quality monitoring methods;
Monitoring site description;
Procedures for flow and auditing of air quality data;
Air quality trends evaluation;
Air quality data evaluation;
Interpretation of air quality data as it relates to the NAAQSs;
Establishment of baseline air quality levels.

Volume 12: Applying Atmospheric Simulation Models to Air Quality Maintenance Areas—This volume discusses models that are available and that are suitable for estimating representative concentrations over spatial scales ranging from approximately 1 km² to city-wide averages. Model discussed in this volume include modified rollback, Miller-Holzworth, Hanna-Gifford, HIWAY, APRAC–IA, AQDM, CDM, the Sampled Chronological Input Model (SCIM), and the SAI photochemical model.

Volume 13: Allocating Projected Emissions to Sub-County Areas—This volume presents techniques for spatial assignment of emissions that are projected both of a county-wide basis, using the techniques presented in Volume 7, and directly from sub-county areas. Spatial assignment of emissions to sub-county areas, as described in Volume 7 and Volume 13, is essential to determine the efficacy of land use and/or emission density patterns as a means for maintaining the NAAQSs. An appendix to Volume 13 contains the results of a trial application of the emission allocation procedure in Atlanta, Georgia. This appendix will be made available upon request.

In addition to these 13 volumes, the Administrator may issue, from time to time, other guideline documents or revisions to the above-listed volumes as the need arises.

The Administrator is making these volumes available to all State air pollution control agencies and to local air pollution control agencies and planning agencies that are located in the AQMAs that the Administrator identified. Other interested persons may obtain copies of any or all volumes in the guidelines series. Copies are available free of charge to Federal employees, current contractors and grantees, and nonprofit organizations, as supplies permit, from the Air Pollution Technical Information Center, Environmental Protection Agency, Research Triangle Park, North Carolina 27711. Other interested persons may obtain copies at a nominal cost from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. These guidelines documents are also available for public inspection at each of the EPA Regional Offices and at the Freedom of Information Center, EPA, 401 M Street SW., Washington, D.C. 20460.

These guidelines are intended to provide States with background and suggestions for developing adequate AQMA analyses and plans. To clarify the requirements for acceptable AQMA analyses and plans, the Administrator is proposing below revisions to 40 CFR part 51. While the guidelines are offered as suggestions, the actual requirements for preparation, adoption, and submission of AQMA analyses and plans are contained in 40 CFR Part 51.

The Administrator wishes to emphasize that the basic requirement for identification, analysis, and plan development for AQMAs was promulgated on June 18, 1973. EPA has been distributing detailed guidelines to the States containing suggestions on how to comply with the basic requirement since the beginning of 1974. Therefore, States that have not already done so can begin work on their AQMA analyses and plans. While the accompanying regulations are in proposed form, they (and the already-distributed guidelines) offer sufficient general guidance on EPA's basic approach to allow the States to proceed with appropriate AQMA analysis and plan development pending final promulgation of these regulations.

PROPOSED REQUIREMENTS FOR MAINTENANCE OF AIR QUALITY STANDARDS

In the action below, the administrator proposes to revise several portions of the existing 40 CFR 51 requirements and to add a new subpart D, which would apply solely to the AQMA analysis and plan and to attainment plan revisions needed in AQMAs. Many of the proposed changes are self-explanatory and therefore need no further elaboration here. Other changes are relatively new and will be discussed in detail.

The AQMA plan (and similarly the transportation control plan, regulations to prevent significant deterioration, and provisions for indirect source review), once approved by the Administrator, constitutes an official revision of the State implementation plan. As such, the AQMA plan is subject to all the applicable procedural requirements set forth in 40 CFR 51. (These items are not separate "plans", but simply revisions to the implementation plan; it has been convenient to refer to them as "plans" however.)

As noted above, there are several other mechanisms available under the Act and in regulations that are designed to assist in maintaining the NAAQSs. These mechanisms include: (1) preconstruction review of new and modified air pollution sources, (2) new source performance standards promulgated under section 111 of the Act, and (3) standadrs for emissions from new motor vehicles promulgated under section 202 of the Act. The AQMA plans are intended to provide for any additional mechanisims that may be necessary to ensure full maintenance of the standards.

Maintenance in Areas Outside SMSAs. One criticism of EPA's *Guidelines for Designation of Air Quality Maintenance Areas* was EPA's emphasis on considering SMSAs as potential AQMAs. This would appear to imply that areas outside SMSAs do not present a potential for a violation of NAAQSs over the next 10 years. It was EPA's intent that States consider SMSAs *at a minimum.*

It is the Administrator's judgment that standards will be maintained in most areas outside SMSAs through currently-imposed mechanisms, particularly review of new and modified sources under 40 CFR 51.18, new source performance standards promulgated or to be promulgated by EPA under section 111 of the Clean Air Act, and motor vehicle emission standards promulgated under section 202 of the Clean Air Act.

Certain situations in areas outside SMSAs do not seem to be effectively regulated by existing mechanisms, however. Since substantial new changes in growth or land development patterns or both could arise between the 5-year periodic reassessments of maintenance problems under § 51.12, the Administrator is proposing in § 51.12 an additional requirement that the State plan contain a procedure for obtaining information on land development as it relates to air quality in all areas of the State. It is expected that States will utilize available data files from cognizant planning agencies for this purpose. Where an area is undergoing an amount of growth sufficient to threaten a standard over the subsequent 10-year or longer period, the State would be required to notify the Administrator. The Administrator would then determine whether to call for a plan revision to maintain the national standards in the area.

All areas of the State, including AQMAs, would be subject to the proposed information-gathering regulations, because a significant amount of development in an AQMA might jeopardize a standard for a pollutant for which that AQMA was not designated. The Administrator will develop guidance for States to follow in establishing a procedure to implement the regulation. The Administrator expects to complete his guidance on this system by the time these regulations are promulgated. The Administrator particularly wishes to solicit comments on ways to implement this procedure.

Elimination of Future AQMA Identifications. In June, 1973, EPA promulgated the requirement that States must identify areas that had the potential for not maintaining the national standards over the subsequent 10-year period. EPA took this action as part of a program to correct all State implementation plans, which were inadequate to maintain the NAAQSs. Now that AQMAs have been identified, States must begin to analyze the areas to determine if they will maintain the standards and then develop corrective strategies if necessary. The Administrator believes that this action will assist in correcting the original plan deficiencies regarding maintenance.

Under the existing regulations, the States must reassess the area identification at least every 5 years to determine whether additional areas should formally be identified as AQMAs. The Administrator believes that this formal AQMA identification in the future is no longer necessary, because the Act already has provision for calling for revisions to plans that, once approved, have been found substantially inadequate to attain or maintain the national standards. It is EPA's intent to call for revisions to plans that are substantially inadequate.

Therefore, the Administrator is proposing that § 51.12 be revised to eliminate future AQMA identifications. The regulations would still require States to reassess, at intervals of not more than 5 years, all areas to determine whether any areas need plan revisions. The Administrator believes that this 5-year reassessment, together with the proposed system for collecting information on growth and development that may affect air quality, discussed above, will provide a procedure for determining which areas may need further plan revisions in the future.

Requirements for AQMA Analysis and Plan Development. To provide specific guidance and requirements concerning AQMA analyses and plans and any attainment plan reviison in AQMAs, the Administrator is proposing to add a new subpart D to part 51. Some of the proposed requirements, such as presentation of data, legal authority, resources, and intergovernmental cooperation, differ from existing requirements for State implementation plans in subparts A and B of part 51. The Administrator is therefore proposing a new § 51.23 to indicate that subpart D will govern where the requirements of subpart D conflict with the requirements of subparts A and B regarding AQMA analyses and plans and any plan revisions in AQMAs to provide for attainment of NAAQSs.

The following discussion concerns the requirements proposed for the new subpart D.

Retention of Authority to Modify Certain Requirements. The Administrator is proposing to retain the authority to modify certain of the new Part 51 requirements upon application by the State or on his own initiative on an AQMA-by-AQMA basis. The requirements that could be modified are:

§ 51.12(g)(1)(i) Date for submission of AQMA analysis.

§ 51.41 (b) Interstate consistency of data bases; (c) Air quality data bases; (d) Emission inventory data bases.

§ 51.42 *Techniques for projecting emissions.*

§ 51.43 *Techniques for allocating future emissions.*

§ 51.44 *Techniques for projecting air quality concentrations.*

§ 51.49(b) Format for submission of descriptions of resources available for implementation of the AQMA plan.

The Administrator recognizes that each area may have different problems, different amounts and kinds of resources available to develop the AQMA analyses and plans, different data bases, and different approaches to solving their air

quality problems. By specifying only one way of performing the analysis and developing a plan, EPA would ignore these differences. Therefore, the Administrator is retaining the option of modifying, on application by the State or on his own initiative, many of the requirements concerning the techniques used in the analysis and plan and the formats for submission of results. This will allow the States to tailor each plan to the individual needs of each AQMA.

The procedures for processing modification applications are being proposed as § 51.51. The procedures are designed to assure that the interested public will be informed of a modification prior to the time a State's AQMA analysis or plan is submitted to public hearings so that the public can more intelligently participate in the rulemaking process. EPA is required to make its decision public in a FEDERAL REGISTER notice.

In order to expedite the handling of such applications and to carry out EPA's policy of augmenting the responsibility of its Regional Offices, the Administrator plans to delegate the authority to grant modifications under § 51.51 to his Regional Administrators. (The Administrator also plans to delegate to the Regional Administrators the authority to determine for each State whether AQMA plans are needed, when they must be submitted, and the time period for which such plans must assure maintenance of the national standards.)

AQMA Analysis. The Administrator is proposing requirements for the AQMA analysis in §§ 51.41, 51.42, 51.43, and 51.44. The requirements concern the applicable period that the analysis must cover, interstate AQMAs, air quality and emission data bases, methods of analysis, and retention of data on growth and development.

The AQMA analysis is currently required under § 51.12(g)(1) for the purpose of determining whether or not the existing State implementation plan is adequate to maintain the NAAQSs for the designated pollutants for a 10-year period in the AQMA identified under § 51.12 (e) and (f). Although States may have performed some analysis already in identifying AQMAs under paragraph (e), the AQMA analysis required under paragraph (g) is intended to be more detailed and sophisticated than the original analysis used to identify the AQMA and should provide for a separate analysis of each AQMA-pollutant combination. As mentioned above, the date for submission of the AQMA analysis would be April 1, 1976, but the Administrator could modify that date.

Several federally-sponsored planning programs that may have an air quality impact require States or substate entities to submit plans that may cover periods longer than 10 years. Examples of such programs are the Department of Transportation's 3-C ("continuing, comprehensive, cooperative") planning process under the Federal Aid Highway Act of 1962, the Department of Housing and Urban Development-sponsored comprehensive plans under section 701 of the Housing and Urban Development Act of 1965, the EPA-sponsored areawide waste treatment plans under section 208 of the Federal Water Pollution Control Act of 1972. The Administrator believes that the periods covered by these plans should be considered in the AQMA analyses and plans. Therefore in AQMAs where plans developed under these and other federal programs cover periods of more than 10 years, the regulations would require that the analysis address the longest period covered by one of these federal plans. If no such plans covering more than 10 years exist in an area, the AQMA analysis would have to address at least the 10 year period from the date of AQMA identification. The Administrator recognizes that some of these other federal plans may not have enough detail upon which to base a thorough projection of air quality beyond the initial 10-year period. In such cases, the Administrator, using his discretion to modify the techniques used in projecting air quality, may permit a less-detailed AQMA analysis for the period beyond the initial 10 years than for the initial 10-year period.

Although it is not necessary for the agency that prepares the AQMA analysis to prepare the AQMA plan, the Administrator believes it would be advantageous to at least have that agency be responsible for the assessment of the control strategy.

For interstate AQMAs, the constituent States must base their AQMA analyses on the same regional emission inventory and air quality baseline wherever possible, but the Administrator may modify this requirement. Where there is disagreement among the States concerning the data bases, the proposed regulations would require that the States consult with the appropriate Regional Offices before they select those data bases.

Emission data used in performing the AQMA analysis is to be submitted to EPA in National Emission Data System (NEDS) format for data that are not already in the NEDS. This data may be submitted in machine-readable format at the State's discretion. The reason for this requirement is the Administrator's desire to have the capability to evaluate projections of emissions and analyses of air quality on a valid data base that can easily be used as input to an automated atmospheric simulation model and to be able to make these data available to others who may have need for them.

For AQMAs designated for nitrogen dioxide, the Administrator recognizes that uncertainty exists regarding the acceptability of air quality data upon which the States must base their AQMA analyses and plans. EPA has not yet defined a single reference method for collecting NO_2 data but has proposed three candidate reference methods in the FEDERAL REGISTER of June 5, 1974 (38 FR 15174). EPA is still evaluating these methods. For purposes of the AQMA analyses and plans, the Administrator proposes below in § 51.41 to allow a State to use the most meaningful data from any one of the three proposed reference methods after consultation with and approval by the Administrator.

§§ 51.42, 51.43, and 51.44 propose that States follow techniques in EPA's *Guidelines for Air Quality Maintenance Planning and Analysis* for projecting emissions, allocating emissions to sub-county areas, and relating projected emissions to air quality concentrations unless States have satisfactory alternative techniques. The proposed regulations specify that several forms contained in the guidelines be completed and submitted as a portion of the AQMA analysis. States that have satisfactory alternative techniques for performing these tasks could, however, employ them, subject to EPA approval. States would have to identify and describe these alternative techniques, justify their use in lieu of EPA's techniques and summarize the calculations made. The alternative techniques would have to be comparable in scope and in level of detail of results to the EPA-specified techniques. Also, the States would have to obtain approval from the Administrator before using such alternative techniques. Procedures for approval are being proposed in a new § 51.51, discussed above.

Although Volume 12 of the *Guidelines for Air Quality Maintenance Planning and Analysis, Applying Atmospheric Simulation Models to Air Quality Maintenance Areas*, allows for the use of several models for each of the pollutants, the regulations proposed below require the States to use the Air Quality Display Model (AQDM) or an equivalent model for particulate matter and sulfur dioxide where appropriate. AQDM has the advantage over other models in that it presents a table indicating the contribution of the air quality at each site from each point source and area source grid. Such a source contribution table is highly desirable when developing a strategy to maintain the national standards, especially when the strategy contains land use measures, and the State must have a fairly detailed estimate of how new sources of emissions will locate in the region.

States can obtain the AQDM program on punched cards through the Regional Offices from the Air Pollution Technical Information Center (APTIC), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711. The program now incorporates the Briggs' Plume Rise equation for point sources. The user's manual, *Air Quality Display Model* (NTIS No. PB 189194); November 1969, can be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151.

States would have to obtain concurrence from EPA on any decision by the State that AQDM or an equivalent model is not appropriate in a particular situation. The State should determine whether such a model is appropriate based on the compatibility of its data bases with the needs of the model, the agency's resources in relation to those needed to

run the model, and any other relevant factors.

States must also determine whether the short-term particulate matter (24-hour primary and secondary) and sulfur dioxide (24-hour primary and 3-hour secondary) NAAQSs will be maintained for the appropriate period. Since AQDM and similar models yield long-term concentrations (seasonal or annual), States must apply a model to relate the long-term concentrations to short-terms concentrations. The recommended model for obtaining the short-term concentrations for the general urban area is found in Larsen, Ralph I., "An Air Quality Data Analysis System for Interrelating Effects, Standards, and Needed Source Reductions—Part 2," *Journal of the Air Pollution Control Association, 24:* 551 (June, 1974); for large point sources, however, the regulations would require that the short-term localized air quality impact of individual sources be considered. The Administrator will issue guidance on a procedure for considering these cases.

Proportional modeling should be used for carbon monoxide and nitrogen dioxide. To determine the reduction in hydrocarbon emissions required to maintain the photochemical oxidant standard, States may use the model contained in 40 CFR 51, appendix J. It is preferable, however, for States that have adequate air quality data for both photochemical oxidants and hydrocarbons to develop relationships between oxidants and hydrocarbons unique to their area of interest. States that do this should consult with EPA on the application of such a derived relationship.

The Administrator also encourages States to perform an areal allocation of projected emissions for all AQMAs, using *Guidelines for Air Quality Maintenance Planning and Analysis, Volume 13: Allocating Projected Emissions to Sub-County Areas*, even where States will be using proportional air quality modeling, to understand the spatial distribution of their future emissions and thus be able to develop a more meaningful control strategy.

The Administrator is aware of the problems inherent in the assessment of the impact of growth and development on air quality. Such factors as the completeness of the current emission inventory, uncertainty in demographic and economic projections, uncertainty about where new sources of pollution will locate, and hard-to-identify relationships between demographic and economic projections and future emissions all combine to create uncertainty in the emission projections. Furthermore, the models used to relate these future emissions to future air quality concentrations have inherent uncertainties regarding the variability of meteorological conditions, the variability in emission rates over time, the unevenness of topography, and, in the case of reactive pollutants, the relationships between the pollutant emitted and the secondary pollutants that form in the atmosphere after emission. Consequently, the quantitative computation should, where appropriate, be supplemented by empirical knowledge in judging whether the NAAQSs will be maintained.

Therefore, the Administrator is proposing that the determination of whether the national standards will be maintained may be based, not only on the quantitative comparison of the calculated air quality concentrations with the national standards, but also on the consideration of a number of factors that affect the accuracy of the projections of air quality concentrations. These factors include, among others, the degree of completion of abatement activities, year-to-year variations in air quality concentrations, adequacy of the emission inventory, the degree of confidence in the data and methods used to project air quality, and the frequency and magnitude of air pollution episodes.

De-Designation of AQMAs. Where the AQMA analysis indicates that an AQMA will maintain a particular national standard, and where the Administrator determines that no AQMA plan is required, it is not necessary for the State to consider the requirements in §§ 51.45, 51.46, 51.47, 51.48, 51.49, and 51.50 which pertain to the AQMA plan. Where the Administrator agrees with the State's determination that the area in fact will not violate a NAAQS for the particular pollutant, the Administrator will rescind his identification of the area for the pollutant. The AQMA analysis, in this case, will not be a part of the AQMA plan and therefore does not have to be subjected to a public hearing.

AQMA Plan. The existing provisions of 40 CFR 51.12 require that an AQMA plan provide for the maintenance of NAAQS for at least ten years from the time the plan is submitted. The Administrator recognizes that a ten year period for maintenance planning may not be appropriate in all cases. For instance, an area may have only a minor amount of growth such that it will marginally fail to maintain the NAAQS. Consequently, the area may need only a modest revision of its existing regulations to offset the small growth in emissions anticipated; a full 10-year plan may not be necessary. On the other hand, an area may have plans for major growth that is anticipated over the next 20 years. A plan for only ten years in such a case would probably not be sufficiently far-reaching to account for the air pollution impact of this growth.

As a result, the Administrator is proposing that the AQMA plan provide for maintenance of the NAAQS for a period of time to be determined by the Administrator, acting through his Regional Administrators, for each AQMA and each pollutant for which the AQMA was identified. The Administrator feels that in no case should this period be less than 3 years and in many cases should probably be for 10 to 20 years. Plans for less than 3 years appear impractical because they would have to be revised too often to provide for continuous maintenance of NAAQS. On the other hand, census data and projections are generally available on a 10- and 20-year basis for transportation, water supply, and waste water treatment. Thus, from 10 to 20 years appears to be an appropriate period of time for planning for air quality maintenance in most areas.

As mentioned above in the discussion on the AQMA analysis, several federally-sponsored planning programs require that States or substate entities submit plans that may cover periods longer than 10 years. The proposed regulations would require that the AQMA plan consider the same period as Department of Transportation-sponsored "3-C" plans, Department of Housing and Urban Development-sponsored 701 comprehensive plans and EPA-sponsored 208 areawide waste treatment plans and any other plans that may have an air quality impact if these plans cover a period of more than 10 years. If no such plan in the area covers a period of more than 10 years, the AQMA plan would only have to consider the 10 year period.

The AQMA plan, however, would not necessarily have to provide a firm, specific strategy for maintenance of the national standards for all of this applicable period. If the AQMA plan provides for maintenance for a period less than the applicable period (for example, 10 years or longer depending on the existence of other federally-sponsored plans with longer time periods), the plan would have to discuss the air quality maintenance problem in the AQMA for the period from the year to which the AQMA plan provides for the maintenance of standards to the end of the applicable period. This discussion would have to outline:

The kinds of control strategies that could be applied to solve the maintenance problem for the applicable time period, and

The kinds of actions that would need to be taken to adopt the necessary laws or regulations in a timely manner.

To provide for continued maintenance of the national standards, States originally had to revise their 10-year plans every 5 years under § 51.12(h). Because the proposed regulations would remove the requirement that the AQMA plan must, in all cases, provide for maintenance of the national standards for 10 years, the proposed regulations would require that the States revise the AQMA plans on a schedule that the Administrator will establish for each area, rather than every 5 years. The Administrator will assess the requirement for revisions of the AQMA plan at least every 5 years, but may require revisions more frequently, if the period over which the plan maintains the standards is less than 5 years. The revisions would have to be submitted in sufficient time, usually at least 2 years, before the period of an existing plan expires. The analysis associated with each revision would have to

account for at least the following 10 years, although any plan revision would only have to provide for the maintenance of standards for a period of time specified by the Administrator.

Also, the Administrator recognizes that providing for the continued maintenance of air quality standards will require different degrees of effort in different areas. Some areas may require merely a simple strengthening and expansion of existing implementation plan regulations. Other areas may have to examine thoroughly the air quality aspects of their general land development and transportation plans, if such exist, and determine whether the growth and development projected by these plans are consistent with continued maintenance of air quality standards. Where no such plan exists, the area's existing legal restrictions on land development, such as zoning restrictions, may have to be examined for their consistency with air quality standards. EPA's *Guidelines for Air Quality Maintenance Planning and Analysis*, specifically, *Volume 4: Land Use and Transportation Considerations* would be helpful in such an examination. Through 40 CFR 51.12 and the regulations proposed below, the Administrator intends to encourage State and local governments to incorporate air quality considerations into plans for growth and development so that air quality standards will be maintained.

The Administrator recognizes that local land use plans themselves will be modified over time irrespective of any air quality considerations. Changes will be made to reflect changing community and regional objectives. Where these and use plans form an integral part of the AQMA plan, changes in the land use plans should be reflected in the AQMA plan.

The Administrator realizes that where States do elect to modify their land use and transportation plans, the States will probably not be able to accomplish the necessary studies, develop new institutional arrangements, obtain the necessary legal authority and measures to ensure adherence to those plans to maintain air quality standards, incorporate the plans into the AQMA plans, and submit them to EPA within a short time. Therefore, under the proposed regulations, the State could submit an AQMA plan that ensures maintenance of the standards for several years and then use those several years to develop a longer range, more comprehensive AQMA plan.

Even though EPA proposes to allow a flexible period over which the NAAQS must be maintained, the State must still submit an analysis covering the 10-year period from AQMA identification. The States and EPA identified AQMAs as areas that have the potential for failing to maintain the standards within the subsequent 10-year period. Therefore, the AQMA analysis must be done for that period of time to determine if this potential really exists.

Among other requirements, § 51.45 specifies that the AQMA plan be submitted in a format indicated in Appendix S, and § 51.46 specifies the content of the AQMA plan strategy.

The Administrator intends to follow the progress of the States in the development of the AQMA plans and in the implementation of all elements of the plans. The Regional Offices will monitor such progress through the process of the semi-annual report required under a proposed amendment to § 51.7. This section would require the States to report in their semi-annual report the status and progress of such items as the acquisition of additional resources, the adoption of new laws or regulations, studies to provide a basis for further actions directed toward the maintenance of the national air quality standards, and the initiation of new programs or the expansion of existing program for the maintenance of the NAAQSs.

Where the Administrator determines that an AQCR will not attain a NAAQS by the specified attainment date, he will call for a plan revision for both attainment and maintenance. As discussed further below, the notice to revise a plan will indicate that the maintenance plan should be submitted with the attainment plan. For the combined attainment/maintenance plan, the Administrator will require the submission by July 1, 1977, of all needed regulations, up to reasonably available control technology (RACT) for emission limitations and other reasonable measures, that will ensure the attainment of national standards as expeditiously as practicable. If RACT and other reasonable measures are not sufficient to attain and maintain the standards, the State would have to submit by July 1, 1978, the complete plan to attain and maintain the standards. The State would have to follow the requirements of Subpart D in preparing attainment/maintenance plan revisions for AQMAs.

Assumptions for quantification of measure effectiveness. The following discussion concerns assumptions that States may make in calculating the effectiveness of various air quality maintenance measures; these are not being proposed below in regulatory form but are presented for the benefit of agencies preparing AQMA plans.

EPA has published revisions to the document, *Compilation of Air Pollutant Emission Factors* (EPA publication No. AP-42). These revisions contain new emission factors for light- and heavy-duty vehicles and motorcycles based upon future estimated control of all pollutants resulting from EPA's requirements for control of emissions from new motor vehicles and from control of fuel additives. Such control should be accounted for in projecting emissions from vehicles in developing AQMA plans.

EPA has provided a best judgment of the emission rates for the groups of sources for which EPA, between now and 1985, will promulgate new source performance standards (NSPSs) under section 111 of the Clean Air Act. States should account for any emission reduction due to these emission rates in projecting emissions from new sources. EPA will provide guidance on procedures for doing so in future supplements to the *Guidelines for Air Quality Maintenance Planning and Analysis*.

States should account for the reduction in emissions of particulate matter, as is the case in control of asbestos and asbestos-containing material, required by the National Emission Standards for Hazardous Air Pollutants, which have been promulgated under section 112 of the Clean Air Act.

Additionally, the Administrator will distribute guidance from time to time to the States on other assumptions to be used concerning the effect of measures to maintain air quality standards.

Quantification of the impact of maintenance measures. As indicated above, the Administrator is aware of the shortcomings in the techniques used to project air quality. The assessment of the impact of measures designed to maintain standards also contains uncertainties. For some individual maintenance measures, the projected effects on reduction of either emissions or the growth in emissions will not readily lend themselves to specific quantification. Therefore, the Administrator is proposing a variation on the computational technique. Where the quantification of the reduction of emissions or growth in emissions resulting from a measure cannot be done with a substantial degree of precision, the State would be allowed to combine that measure with other similar measures and estimate an aggregate effect, based on best available quantitative data and sound scientific judgment. One should bear in mind that the Clean Air Act requires that implementation plans ensure the attainment and maintenance of the national ambient air quality standards; although some calculations that are used to demonstrate that plans will ensure attainment and maintenance defy absolute precision, States and the Administrator must use their best judgement to develop workable plans to carry out the Congressional mandate.

AQMA Plan: Legal Authority. The proposed requirements for legal authority in the new § 51.48 differ from the requirements of § 51.11 in that it provides for approval by EPA of legal authority for certain kinds of measures that local government will be expected to enforce, even though such measures may not also be enforceable by the State.

The proposed regulations would require that the plan demonstrate that the State or substate entity has adequate legal authority to implement the measures contained in the plan.

The Administrator recognizes that in some areas the State may have to include in its AQMA plan measures that local governments have traditionally enforced or that would be more effectively enforced by a local government or, in some cases, that must be enforced by local governments as a matter of State law. Examples of these measures are (1) local zoning ordinances that would preserve a specific emission density limitation and (2) minimum thermal insulation requirements for all new buildings that are designed to reduce consumption of fuel used for space heating and thereby reduce pollutant emissions from such combustion. Under the existing regulations in § 51.11, the State would have to obtain the necessary legal authority to enforce these measures.

Furthermore, since the acquisition of such authority is a time-consuming process in some States, States may not be able to acquire such authority in time to submit an acceptable plan. Therefore, the Administrator is proposing that the State need only demonstrate in the AQMA plan that a local government has the legal authority to enforce such measures.

AQMA Plan: Intergovernmental Cooperation and Coordination. The Administrator recognizes that the development of AQMA plans in many areas may involve measures not traditionally employed by air pollution control agencies, such as measures that may affect the distribution of new emission-producing or emission-inducing facilities. Many air pollution control agencies have neither the expertise in developing and implementing these measures nor the authority to implement them. The Administrator realizes that these air pollution control agencies by themselves may not be able to develop and implement AQMA plans that will be politically and socially acceptable. It may be more appropriate for the Governor of a State to designate an agency other than the air pollution control agency as the lead agency in the development of the AQMA plan. In any case, the agency developing the plan will have to draw upon the resources of a great many State, regional, and local agencies and local governments. Furthermore, the implementation of a comprehensive AQMA plan will undoubtedly require the services of other State and local agencies and local governments in addition to those of the air pollution control agencies.

To provide for such coordination, the regulations proposed below contain provisions to ensure participation in the AQMA plan preparation and implementation process by other agencies and local governments. Specifically, the proposed regulation would require the State to consider which governmental offices should participate in AQMA plan development and implementation. A list of agencies to be considered is included in appendix U to the proposed regulations. The regulations would also require the lead agency responsible for the development of the AQMA plan, regardless of whether it is a State or local agency, to consult with the appropriate agencies established to administer planning under section 701 of the Housing and Urban Development Act of 1965, the appropriate urban transportation planning agencies established under the Federal Aid Highway Act of 1962, and the Urban Mass Transportation Act of 1964, the agencies responsible for planning and implementation of requirements under Section 208 of the Federal Water Pollution Control Act Amendments of 1972, the appropriate agencies designated under the Coastal Zone Management Act of 1972, and cognizant clearinghouses established under Office of Management and Budget Circular A-95 (published in the FEDERAL REGISTER of November 28, 1973 (39 FR 39874)) if such lead agency does not have continuing responsibilities for the management of land use and transportation facilities. If the State or local lead agency is not an air pollution control agency, then the agency would also have to consult with the appropriate State and local air pollution control agencies.

Each AQMA plan would also have to contain (1) an identification of the agency designated by the governor as primarily responsible for the implementation of the AQMA plan, (2) an identification of other State agencies and substate agencies responsible for the implementation of the AQMA plan, and (3) a definition of their responsibilities. The State would still, however, have the ultimate responsibility for the implementation of the plan. Also, AQMA plans must include:

A description of the relationships between air quality management and State, regional, and local programs for land use management, transportation and parking management, water quality and solid waste management, and other processes substantially affecting or affected by air quality management; and

A description of the existing and proposed relationships for coordinating the development and implementation of the AQMA plan with the development and implementation of comparable plans in any adjacent AQMA.

It is important that the agencies responsible for developing an AQMA plan coordinate with agencies responsible for developing an Areawide Waste Treatment Management Plan under section 208 of the Federal Water Pollution Control Act for the same or overlapping area. Aspects of 208 planning and AQMA planning are interrelated in the sense that both utilize an areawide planning approach to deal with significant pollutant problems, and both can affect decisions regarding such things as industrial location and general growth and development. Therefore, the regulations would require that the AQMA plan not conflict with the applicable requirements of the Federal Water Pollution Control Act Amendments of 1972.

Guidelines for Air Quality Maintenance Planning and Analysis, Volume 2: Plan Preparation presents a discussion of several modes of intergovernmental coordination concerning who will develop and who will implement the AQMA plan.

The proposed regulations would also provide for additional transmission of information among agencies responsible for AQMA plan implementation. Furthermore, to provide for a comprehensive review by all appropriate State, regional, and local agencies and governments, the State would have to submit the AQMA plan and any substantive regulatory revisions thereof for review and comment for a period of 30 days to the cognizant clearinghouses as established under Office of Management and Budget Circular A-95. This 30-day review could occur simultaneously with the 30-day period before the public hearing on the AQMA plan.

The Administrator also encourages the Governors of the States to appoint an advisory committee to assist in the development of the AQMA plan. Such a committee could meet periodically during the preparation of the AQMA plan and could be given the opportunity to review and comment on the AQMA plan prior to its submission to EPA. Such a committee could include representatives of appropriate governmental offices, public interest groups, commercial, industrial and institutional interests, and members of the scientific and academic communities.

Although the proposed regulations would not specifically require that AQMA plans for State portions of interstate AQMAs be compatible, the Administrator encourages the constituent States of interstate AQMAs to develop compatible plans in such areas. The plan must, however, under section 110(a)(2)(E) of the Act, provide for measures that are necessary to ensure that emissions from sources in one region will not interfere with the attainment or maintenance of national standards in any region outside the State or in any other region.

Other Proposed Revisions. The Administrator is also proposing other revisions to 40 CFR 51 concerning air quality maintenance in addition to the items discussed above. These include the following: definitions, public hearings, submission and preliminary review of AQMA analyses and plans, reporting requirements, AQMA plan format, air quality and source surveillance, and resources. The Administrator encourages States to work closely with the EPA Regional Offices in performing their AQMA analyses and developing their AQMA plans. The States are particularly urged to submit draft copies of the AQMA analysis for preliminary review by the Regional Office prior to beginning development of the AQMA plans.

WORKLOAD ON STATES

Undoubtedly, the requirements for AQMA analysis and plan development will necessitate a large expenditure by the States of financial, technical, and human resources. The Administrator was aware of this from the time of promulgation of the original regulations concerning AQMAs on June 18, 1973, and has taken all the steps in his power to minimize this workload on the States and still abide by the Clean Air Act. For instance, EPA's development of techniques to identify AQMAs, project emissions, allocate projected emissions, and develop plans will reduce the burden of the States considerably, since States will not have to develop their own techniques. EPA will also be able to provide a limited amount of contractual assistance to States in performing tasks related to air quality maintenance. Even with this assistance, States must still make a substantial effort to complete these tasks. The Administrator's judgment, however, is that the effort must be made to satisfy the requirements of the Clean Air Act.

PUBLIC PARTICIPATION

Since the AQMA plan is a substantive revision to the State implementation

plan, the public hearing requirements of § 51.4 apply to its development. The Clean Air Act strongly emphasizes the necessity for broad public participation in the implementation plan development process. This emphasis particularly applies to the consideration of measures that may affect existing growth patterns and transportation modes.

Periodic Reassessment

Essential to any continuing air quality management program is the periodic assessment of both current status of air quality and projected air quality. States should at least annually upgrade their emission inventory, reassess the distribution of emissions, and familiarize themselves with latest advances in techniques for projecting emissions and relating them to air quality concentrations. Although the Administrator will require States to perform a repetition of the process of problem area reanalysis at least every five years, the Administrator encourages States to perform this process, in whole or at least in part, more frequently, particularly when newer data and techniques become available. Presumably, as a result of this present iteration, much information will be gained to enable the development of more accurate projection techniques.

Although the proposed regulations below do not require air quality monitors for AQMAs beyond those already required in 40 CFR 51.17, the Administrator encourages States to consider establishing more sites as the need for such becomes evident. Furthermore, the Administrator is contemplating the proposal of a revised minimum requirement for additional monitors beyond those in 40 CFR 51.17.

Relationship to Significant Deterioration Regulations

In the Federal Register of December 5, 1974 (39 FR 42510), and June 12, 1975 (40 FR 25004), the Administrator published regulations requiring the prevention of significant deterioration of air quality as defined in those regulations.

Aside from the differences in procedural requiremnts for the non-significant deterioration regulations and the air quality maintenance regulations, the difference between the two regulations is mainly one of emphasis: the non-significant deterioration regulations are designed to maintain air quality in certain areas at a level superior to the NAAQSs; the air quality maintenance regulations are designed to maintain air quality areas at a level superior to the NAAQSs; Both the regulations to prevent significant deterioration and the AQMA plan are portions of the State implementation plan.

The non-significant deterioration regulations provide for State designation of areas under three classifications: Class I applies to areas in which practically any change in air quality would be considered significant; Class II applies to areas in which deterioration normally accompanying moderate orderly growth would be considered insignificant; Class III applies to those areas in which deterioration up to the standard would be considered insignificant. Counties or other functionally equivalent areas that pervasively exceed any NAAQSs for particulate matter or sulfur dioxide are exempt from the classification. Until the State (or Federal Land Manager or Indian Governing Body, as appropriate) reclassifies areas, all areas (except those areas exempted) are classified Class II.

The mechanism for enforcing the air quality deterioration limits is the review of new and modified stationary sources of 18 categories for their impact on particulate matter and sulfur dioxide limitations. An affected source built in an area of one classification (or in an exempt area) also cannot violate the deterioration limit in another area.

Where an AQMA has been designated because of projected problems in maintaining the NAAQSs for either particulate matter or sulfur dioxide, the significant deterioration increment is applicable only to those portions of the AQMA that are cleaner than either standard. By design, many AQMA boundaries will be designated to include areas that are relatively clean. This will be done to ensure that the planning area corresponds to the entire area where projected new growth in emissions is likely to occur and where regional planning for public services, housing, and employment is focused.

Although there seemed to be a general assumption that AQMAs should be designated as Class III, there are several situations where a State may wish to leave the clean air portions of an AQMA as Class II or even to redesignate the area to a Class I. This would force very restrictive controls on peripheral growth so as to complement the goals of the AQMA plan and in this context, the significant deterioration limits would actually be a mechanism for partially implementing the AQMA plan. In addition, there are several clean air areas that have been proposed as AQMAs due to anticipated large-scale development of natural resources. A Class I or Class II designation for such areas may eliminate the need for an AQMA plan for particulate matter or sulfur dioxide since the air quality constraint would be the Class I or Class II air quality increment. Therefore, a "de-designation" of the AQMA for particulate matter or sulfur dioxide may be appropriate if growth in emissions due to facilities other than those reviewed under the non-significant deterioration regulations is not expected to prevent the maintenance of the NAAQSs. In any case, the Administrator recommends that any proposed significant deterioration redesignation have boundaries consistent with AQMA boundaries where necessary to facilitate the development of the AQMA plan.

A Class III designation does not necessarily mean that an AQMA plan would be required. For example, a Class III area's air quality concentrations may be expected to increase up to the NAAQS but not beyond.

Furthermore, it is important to recognize that area classifications need not necessarily be based on current air quality or current and use patterns. Instead, classifications should reflect the desired degree of change from current levels and patterns.

Correction of Plan Deficiencies

The Administrator is concerned about the deficiencies other than those regarding air quality maintenance and non-significant deterioration that still exist in some implementation plans. (All 55 plans are still deficient regarding air quality maintenance and non-significant deterioration.) As of March 1, 1975, all 55 plans still had other regulatory deficiencies requiring EPA promulgation. These regulatory deficiencies include lack of adequate provisions for the following: variance procedures, public availability of emission data, source record keeping, review of new and modified sources, obtaining adequate compliance schedules, transportation control measures, and emission limitations. Also, non-regulatory deficiencies exist in some State implementation plans for air quality surveillance, periodic source testing and inspection, resources, and intergovernmental cooperation. The Administrator strongly recommends that the States correct these deficiencies, especially the regulatory ones, so that the Administrator can withdraw his disapproval and rescind his promulgation. The States are encouraged to use the AQMA analysis and plan submittal as a vehicle for transmitting their plan revisions to EPA to correct the deficiencies, if not transmitted earlier.

Relationship to Energy Supply and Environmental Coordination Act of 1974

In June, 1974, Congress passed and the President signed the Energy Supply and Environmental Coordination Act (ESECA) of 1974. As stated in section 1 of this Act, the purposes of the Act are "(1) to provide for a means to assist in meeting the essential needs of the United States for fuels, in a manner which is consistent, to the fullest extent practicable, with existing national commitments to protect and improve the environment, and (2) to provide for reports respecting energy resources." To carry out these purposes, the Act (1) gives the Federal Energy Administration (FEA) the authority to increase the use of coal in major fuel-burning installations, (2) gives EPA the authority to apply environmental requirements to such installations as necessary to protect the public, (3) defers automobile emission standards and places limitations on transportation control plans, and (4) requires FEA, EPA, and other agencies to report to Congress on matters pertinent to energy and the environment.

The provisions of ESECA are difficult to summarize here without a lengthy explanation; the reader is referred to ESECA for details. The provisions of ESECA may, however, cause an increase in emissions in some areas as a result of the increased use of coal in fuel-burning installations and the possible tem-

porary relaxation of emission limitations. States should familiarize themselves with the provisions of ESECA and should account for potential increases in emissions resulting from the application of the ESECA provisions when they develop their AQMA analyses and plans.

EPA has recently revised its *Compilation of Air Pollution Emission Factors* (EPA document AP-42, Second Edition, April 1973), which is used to project emissions from mobile sources (such as automobiles). The revision now accounts for the fact that the full statutory automobile emission standards have been delayed for two years: one year (to 1977) by ESECA and another year (to 1978) by the Administrator's granting of a discretionary suspension, which is permitted under ESECA.

Failure To Attain Air Quality Standards by Attainment Date

In March, 1974, the Administrator forwarded to Congress a proposed amendment to the Clean Air Act which would provide EPA with greater flexibility in implementing the Act. One aspect of the proposed amendment concerns the transportation controls required for some urban areas. Many of these urban areas can achieve the national photochemical oxidant and carbon monoxide ambient air quality standards by mid-1977 through the application of new motor vehicle emission standards, stringent stationary source standards, and in some cases additional control efforts, such as institution of motor vehicle inspection and maintenance programs and greater use of mass transit and car pools. A number of communities, however, are so heavily impacted by motor vehicle-related pollutants that extreme measures such as severe gasoline rationing would be necessary to achieve air quality standards within the statutory deadline even after all other control measures were instituted.

Under the proposed Act amendment, EPA would be authorized to allow up to five additional years for compliance with the mobile source-related air quality standards for those communities where attainment of those standards by 1977 would cause serious economic and social disruption. EPA would grant this extra time only if all reasonable control measures under existing plans have been or will be instituted. EPA would be authorized to provide a further five-year extension in those cases where it would not be possible to achieve compliance within the first five years. It is anticipated that only a few cities may need more than a single five-year extension. Providing this additional time in appropriate cases will allow for the full impact of federal regulations applicable to new motor vehicles to be realized and grant communities the flexibility they need to develop long-term transportation system solutions necessary to help meet air quality standards.

In January, 1975, the Administrator also forwarded to Congress, another proposed amendment to the Clean Air Act that would allow more time to attain the particulate matter standard where attainment by 1977 would require measures that are not reasonably available. Under the proposed amendment, EPA would be able to allow up to five additional years for attainment of the particulate standard, but would only grant this extra time if all reasonable control measures under existing plans have been or will be instituted. EPA would be authorized to provide a further extension up to five years in those cases where it would not be possible to achieve compliance within the first five years.

Until the time that these Act amendments are passed by Congress, it is possible that an area may not attain an air quality standard by the mandatory deadline. The Administrator intends to continue to monitor both the States' progress toward attainment of air quality standards and their status in maintaining those standards after attainment.

In any area where there appears to be a genuine problem in attaining or maintaining an air quality standard, the Administrator will take action and either enforce a regulation with which sources may not be complying or issue a notice to revise the plan if all sources are in compliance and the apparent cause for the discrepancy is a substantially inadequate plan. If there appears to be a potential for non-maintenance of a national standard in an area that had not been designated as an AQMA, the Administrator will decide whether to call for a plan revision to maintain standards in the area. As discussed above, however, EPA will not identify any more AQMAs.

The Administrator will be conducting a review of all areas throughout the States, including AQMAs, prior to July 1, 1976, to assess the adequacy of the existing State implementation plans to attain the national standards. Assessment of the adequacy of State implementation plans is a continuing task of the Administrator; this review will insure consideration of those areas which were not identified by the Administrator as AQMAs. The Administrator will notify the States by July 1, 1976, as to which State implementation plans are substantially inadequate to attain the standards and will require those States to revise their implementation plans to provide for attainment and maintenance. Dates for submission of these revisions are discussed above. An attainment plan revision for an AQMA would also have to follow the requirements of subpart D of 40 CFR 51.

Where the Administrator calls for a plan revision, one should note that until the plan is actually revised (i.e., subjected to public hearing, adopted by the State, submitted to and approved by the Administrator), the existing implementation plan (including, of course, transportation control strategies which are part of the plan) remains in effect. The Administrator expects sources to comply fully with the plan in the interim. Furthermore, many sections of the plan will be unaffected by a revision.

If sources delay in coming into compliance on the grounds that the plan may be revised to require more stringent controls, States should commence enforcement proceedings against such sources. Where the States neglect to take such action, it is the Administrator's intent to proceed against the sources. States may, however, delay compliance with the new, more stringent regulations, once adopted, for those sources that have recently installed control equipment that met the previously effective regulations. The Administrator realizes that such a "grandfather clause" is often appropriate so that sources may amortize their recently-acquired control equipment over a reasonable time before being required to replace existing equipment with more effective equipment. Such "grandfathering", however, must not be allowed to interfere with attainment or maintenance of a standard.

The Administrator realizes that in performing their AQMA analyses, States may discover that the area in question may not attain the national secondary air quality standards by the attainment date specified in 40 CFR Part 52. In these instances, States may request an extension to attain the secondary standards, as long as the date for such attainment is within a "reasonable time" as described under 40 CFR 51.13(b).

Environmental Impact Statement

In the Federal Register of October 21, 1974 (39 FR 37419), the Administrator published procedures for the voluntary preparation of environmental impact statements on the Environmental Protection Agency's most significant regulatory actions. Those procedures apply to "regulations prescribing substantive criteria with major significance for the preparation, adoption, and submittal of implementation plans by States under section 110 [of the Clean Air Act]." The Administrator promulgated the substantive requirement that the States identify AQMAs and submit analyses and plans for these AQMAs under § 51.12 on June 18, 1973 (38 FR 15834). He amended these substantive requirements on June 19, 1975 (40 FR 25814). The regulations proposed below are intended as a clarification and amplification of those basic requirements and are essentially procedural rather than substantive in nature. As such, this proposal does not require an environmental impact statement.

EPA regional offices

[The following are the addresses of EPA's regional offices. These are presented here for the benefit of those who wish to inspect any of the volumes in the series, "Guidelines for Air Quality Maintenance Planning and Analysis"]

Region	States	Address
I	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.	2113 John F. Kennedy Federal Bldg., Boston, Mass. 02203.
II	New Jersey, New York, Puerto Rico, Virgin Islands.	26 Federal Plaza, New York, N.Y. 10007.
III	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.	Curtis Bldg., 6th and Walnut Sts., Philadelphia, Pa. 19106.
IV	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.	1421 Peachtree St., N.E., Atlanta, Ga. 30309.
V	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.	Federal Bldg., 230 South Dearborn, Chicago, Ill. 60604.
VI	Arkansas, Louisiana, New Mexico, Oklahoma, Texas.	1600 Patterson St., Suite 1100, Dallas, Tex. 75201.
VII	Iowa, Kansas, Missouri, Nebraska.	1735 Baltimore Ave., Kansas City, Mo. 64108.
VIII	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	1860 Lincoln St., Suite 900, Denver, Colo. 80203.
IX	American Samoa, Arizona, California, Guam, Hawaii, Nevada.	100 California St., San Francisco, Calif. 94111.
X	Alaska, Idaho, Oregon, Washington.	1200 6th Ave., Seattle, Wash. 98101.

PUBLIC COMMENT

Interested persons are invited to participate in this rulemaking.

Written comments on this proposal may be submitted to the Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attn. Mr. Jean Schueneman. Comments should be submitted preferably in triplicate to facilitate distribution to staff personnel and for public availability. All relevant comments received on or before November 19, 1975, will be considered. Comments received will be available for public inspection during normal business hours at the Freedom of Information Center, EPA, 401 M St., S.W., Washington, D.C. 20460.

AUTHORITY: Secs. 110 and 301(a) of the Clean Air Act, as amended (42 U.S.C. 1857c-5, 1857g(a)).

Dated: October 9, 1975.

RUSSELL E. TRAIN,
Administrator.

It is proposed to amend 40 CFR Part 51 as follows:

1. Section 51.1 is amended by adding paragraphs (ee), (ff), and (gg) as follows:

§ 51.1 Definitions.

* * * * *

(ee) "Air quality maintenance area" (AQMA) means any area that has been identified by the Administrator under § 51.12(f) of this part as having the potential for exceeding any national standard.

(ff) "Air quality maintenance area (AQMA) analysis" means an analysis of the impact of emissions from existing sources and emissions associated with projected growth and development on air quality in an AQMA, which analysis is required to be submitted under § 51.12 (g) of this part.

(gg) "Air quality maintenance area (AQMA) plan" means a plan to prevent any national standard from being exceeded in an AQMA, which plan is required to be submitted:

(1) Under § 51.12(g) of this part; or

(2) At the notification of the Administrator to provide for both the attainment and maintenance of the national standards.

2. In § 51.4, paragraph (b) is amended by adding subparagraph (6) as follows:

§ 51.4 Public hearings.

* * * * *

(b) * * *

(6) In the case of hearings on AQMA analyses and plans, notification to the chief executives of affected local governments, planning agencies, transportation agencies, environmental control agencies, economic development agencies, and any other affected States.

* * * * *

3. Section 51.5 is amended by adding paragraph (f) as follows:

§ 51.5 Submission of plans; preliminary review of plans.

* * * * *

(f) Submission of the AQMA analysis and plan to the Administrator shall be accomplished by delivering six copies of the AQMA analysis and plan to the appropriate Regional Office. Such AQMA analysis and plan shall be adopted by the State and submitted by the Governor by the date prescribed by the Administrator.

4. Section 51.7 is amended by adding paragraph (e) as follows:

§ 51.7 Reports.

* * * * *

(e) Where an AQMA plan prescribes that the State or any governmental subdivision

(1) Obtain additional resources; or

(2) Adopt new laws or regulations; or

(3) Conduct studies to provide a basis for further actions directed toward the maintenance of national standards; or

(4) Initiate new programs or expand existing programs for the maintenance of national standards;

the State shall report on the status and progress of such in the semi-annual report, commencing with the first semi-annual reporting period following submission of the AQMA plan and ending with the completion of such programs. The Administrator shall identify those matters on which the State must report.

5. In § 51.12, paragraphs (e)(3), (g), and (h) are revised, and paragraph (i) is added as follows:

§ 51.12 Control strategy: General.

* * * * *

(e) * * *

(3) At intervals of no more than 5 years, the State shall reassess all areas of the State to determine if any additional areas are in need of plan revisions because of a substantially inadequate plan. The State shall retain its written reassessment for inspection by the Administrator.

* * * * *

(g)(1) For each area identified by the Administrator pursuant to paragraph (f) of this section, the State shall submit the following:

(i) An analysis of the impact on air quality of projected growth and development over the applicable period specified in § 51.41(a) of this part. The State shall submit this analysis by April 1, 1976, but the Administrator may modify this date pursuant to the procedures set forth in § 51.51 of this part.

(ii) A plan to prevent any national standards from being exceeded. This plan shall include, as necessary, control strategy revisions and/or other measures to ensure that projected growth and development will be compatible with maintenance of the national standards. This plan shall be subject to the provisions of § 51.6 of this part. The State shall submit the plan according to a time schedule to be specified by the Administrator.

(h) The plan required under paragraph (g) of this section shall, for all purposes, be considered as a portion of the applicable State implementation plan within the contemplation of § 110(d) of the Act and shall be subject to all of the applicable procedural requirements set forth in this part. More specific regulations concerning the AQMA analysis and plan appear in Subpart D of this part.

(i)(1) For all areas of the State, the State implementation plan shall, within 1 year of the effective date of this regulation, provide for a procedure for the continual acquisition of information about new and modified land development.

(2) The State shall collect and retain annual data for all areas of the State on actual growth and development in terms of parameters and information used in projecting emissions, such as population, earnings, employment, production, building starts, land use development, vehicle miles traveled, and gasoline sales.

(3) The State shall notify the Administrator if it determines, based upon the information required to be collected under paragraphs (i)(1) and (2) of this section, that an area is undergoing an amount of development such that it presents the potential for a violation of national standards within a period of 10 years or longer.

6. Subpart B is amended by adding § 51.23 as follows:

§ 51.23 Exceptions.

To the extent that Subpart D conflicts with the requirements of Subparts A or B with respect to the air quality maintenance area analysis or plan, Subpart D shall govern.

7. Subpart D is added as follows:

Subpart D—Maintenance of National Standards

§ 51.40 Scope.

(a) The requirements of this subpart shall cover:

(1) The AQMA analysis of the impact on air quality of emissions from existing sources and emissions associated with projected growth and development as required under § 51.12(g)(1) of this part.

(2) The AQMA plan to prevent any national standard from being exceeded as required under § 51.12(g)(2) of this part; the Administrator will identify those AQMA's for which the State must submit an AQMA plan.

§ 51.41 Air quality maintenance area analysis: General.

(a) *Applicable analysis period.* The AQMA analysis shall provide a projection of the impact on air quality of projected growth and development over:

(1) The longest period covered by any of the following federally-sponsored plans in the AQMA if such federally-sponsored plans cover a period that extends beyond the 10-year period following the date on which the Administrator identified the AQMA:

(i) Transportation plans developed under the Federal Aid Highway Act of 1962;

(ii) Comprehensive plans developed under section 701 of the Housing and Urban Development Act of 1965;

(iii) Areawide waste treatment plans developed under section 208 of the Federal Water Pollution Control Act of 1972; and

(iv) Any other federally-sponsored plan that may have an air quality impact; or

(2) A period of at least 10-years from the date on which the Administrator identified the AQMA, if no federally-sponsored plan under paragraph (a)(1) of this section in the AQMA covers a period that extends beyond the 10-year period following the date on which the Administrator identified the AQMA.

(b) *Interstate AQMAs.* For interstate AQMAs, the AQMA analysis from each constituent State shall be based upon the same regional emission inventory and air quality baseline. Prior to selecting an emission inventory and an air quality baseline, the constituent States in which the interstate AQMA lies shall consult with the appropriate EPA Regional Offices where there is disagreement among the constituent States as to the data bases.

(c) *Air quality data base.* (1) All applicable data collected from all existing sites since October 1, 1972, must be considered in the development of the baseline air quality in the AQMA for the AQMA analysis, which is to be submitted by the date specified by the Administrator. The following identification and submission requirements shall apply to all air quality data used for computing baseline levels:

(i) Data used in computing baseline levels previously submitted to EPA pursuant to § 51.7 of this part must be identified by the SAROAD identification number of all applicable sites, the time period(s) utilized (month, calendar year quarter, etc.), and the Universal Transverse Mercator (UTM) coordinates of each of the applicable sites.

(ii) Air quality data collected since October 1, 1972, that have been used in computing baseline levels but have not previously been submitted to EPA pursuant to § 51.7 of this part shall be recorded and submitted in accordance with the procedures and data forms specified in the "Storage and Retrieval of Aerometric Data (SAROAD) Users Manual," USEPA, OAP, APTD–0663. Sampling site information for each sampling site shall be submitted in the SAROAD Site Identification Form to the appropriate EPA Regional Office prior to submission of the air quality data to EPA.

(2) Where an AQMA has been identified for nitrogen dioxide, the air quality baseline shall be based upon measurements by one of the three proposed candidate reference methods described in the FEDERAL REGISTER of June 6, 1973 (38 FR 15174). Before selecting the data, the State shall obtain from the Administrator approval of the choice of data on which to base the nitrogen dioxide air quality baseline.

(d) *Emission inventory data base.* All source emissions data used in the AQMA analysis baseline inventory that have not previously been transmitted to EPA must be submitted in National Emissions Data System (NEDS) format in conjunction with, but not as part of, the plan. The data required by this paragraph shall be recorded and submitted according to the respective formats for point source data and area source data specified in the "Guide for Compiling a Comprehensive Emission Inventory," Revised (March 1973) U.S. Environmental Protection Agency, Office of Air and Water Programs, APTD–1135, or latest revision or supplement thereof.

(e) For each AQMA and for each pollutant for which the AQMA is identified, the AQMA analysis shall contain identification of the sources of projections of growth and development used in projecting and allocating emissions for the period being analyzed by source category and a justification of the choice of such parameters. Projections may be in terms of such parameters and information as earnings, employment, production, building starts, land use development, vehicle miles traveled, and gasoline sales.

(f) The State shall retain a detailed data and calculations and shall submit such to the Administrator at his request. Such data and calculations shall not be considered part of the applicable plan.

(g) In making the determination of whether a national standard will be violated in an AQMA within the applicable period, the State may account for factors such as those listed below, that may affect the accuracy of the calculations of projected air quality concentrations. Where the State considers such factors in its determination of whether a national standard will be violated the AQMA analysis shall contain a full discussion of the factors.

(1) The degree of completion of abatement activities for which regulations currently exist;

(2) Current air quality concentrations, the magnitude of past year-to-year variations in air quality concentrations, and the degree to which the national standard is currently being violated;

(3) The future date when currently applicable measures will no longer be able to ensure maintenance of national standards;

(4) The stringency and comprehensiveness of existing regulations;

(5) The adequacy of the existing emission inventory;

(6) The adequacy of the current air quality surveillance procedures and enforcement activities;

(7) The adequacy of the current new source review procedures;

(8) The degree of confidence in the projected demographic and economic data that was used to project emissions;

(9) The degree of confidence in the methods used to project emissions, allocate projected emissions and determine the air quality concentrations resulting from the projected emissions;

(10) Local and regional meteorological and topographical conditions;

(11) The frequency and severity of air pollution episodes since the adoption of the existing implementation plan;

(12) Progress made in reducing pollutant concentrations in the last three years;

(13) The adequacy of the manpower and financial resources that the State will obtain to implement current and future regulations and the growth of the control program since the adoption of the existing plan.

(h)(1) Where the State or the Administrator determines that a national standard for which an AQMA is identified will be violated within that AQMA within the applicable analysis period, the State shall submit to EPA an AQMA plan under this subpart and § 51.12(g)(2) of this part.

(2) The State shall submit the AQMA analysis.

(i) In a preliminary form to the Administrator by the date he specifies; such preliminary analysis shall not be considered a part of the AQMA plan at the time of submission;

(ii) In final form as a part of the AQMA plan to the Administrator by the date he specifies, if the Administrator requires the State to submit an AQMA Plan.

(i) Where the State determines that a national standard for which an AQMA is identified will not be violated within that AQMA within the applicable analysis period, the State shall submit to EPA only the AQMA analysis under this section and § 51.12 of this part. Such analysis shall not be considered a part of the applicable plan.

(j) The Administrator shall have the authority to modify the requirements of paragraphs (b), (c), and (d) of this sec-

tion pursuant to the procedures set forth in § 51.51 of this part.

§ 51.42 Air quality maintenance area analysis: Projection of emissions.

(a) For each AQMA and for each pollutant for which the AQMA is identified, the AQMA analysis shall contain projections of emissions for the period being analyzed by county and by source category. Except as otherwise provided under paragraph (c) of this section, the State shall project emissions by following the techniques for projecting emissions specified in "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 7, Projecting County Emissions," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. (OAQPS No. 1.2–026) (hereinafter referred to as "Volume 7"); any subsequent revision or supersedure of this document shall take precedence over the existing document. The AQMA analysis shall indicate the level of analysis performed, except as otherwise provided under paragraph (c) of this section.

(1) A projection of emissions shall be presented:

(i) For at least the fifth and tenth years following the date of the Administrator's identification of the AQMA and for the end of the applicable analysis period, if the AQMA analysis is used to determine the effect of growth and development on air quality under § 51.12 (g) (1) of this part;

(ii) For the last year of the period for which the AQMA plan is designed to maintain the national standards and for any other preceding years the Administrators specifies, if the AQMA analysis is used to evaluate the effect of a control strategy in an AQMA plan submitted under § 51.12(g)(2) of this part.

(2) If the State allocates emissions under § 51.43 of this part, Volume 7 shall be used to project emissions from all source categories except (i) transportation, if an Order 2 or 3 allocation (as specified in "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 13: Allocating Projected Emissions to Sub-County Areas," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C.) is performed for the transportation category and (ii) industrial (both process and fuel combustion sources).

(3) If the State does not allocate emissions under § 51.43 of this part, volume 7 shall be used to project emissions from all source categories.

(b) (1) If an allocation of emissions is performed under § 51.43 of this part, the State shall submit as a part of the AQMA analysis a summary of baseline emissions and projected emissions for the years specified in paragraph (a) of this section for at least the entire AQMA in a format similar to that in Table 7.1, "County Base Year Emissions Report," contained in Volume 7.

(2) If an allocation of emissions is not performed under § 51.43 of this part, the State shall submit as a part of the AQMA analysis completed Tables 7.1, "County Base Year Emissions Report," and 7.2, "Projected County Emissions Report," contained in Volume 7, for each county in the AQMA; Table 7.1 shall present the base year emissions and Table 7.2 shall present projections for the years specified in paragraph (a) of this section.

(c) A State may project emissions using techniques other than those specified in paragraph (a) of this section; where a State uses alternative techniques, the following requirements shall be met:

(1) Prior to using alternative techniques, the State shall obtain approval to use these techniques from the Administrator pursuant to the procedures set forth in § 51.51 of this part.

(2) The alternative techniques shall be comparable in scope and level of detail of results to the techniques specified in paragraph (a) of this section.

(3) The AQMA analysis shall contain:

(i) An identification, complete description, and justification for the use of the alternative techniques;

(ii) A summarization of the calculations used in projecting emissions;

(iii) A summarization of present emissions and the emissions projected for the years specified in paragraph (a) of this section. These tables need only be completed for those pollutants for which the AQMA was designated.

(4) Such alternative emission projection techniques shall include the effect on emission rates due to:

(i) Standards of Performance for New Stationary Sources under section 111 of the Act,

(ii) National Emissions Standards for Hazardous Air Pollutants under section 112 of the Act,

(iii) Motor Vehicle Emission and Fuel Standards under part A and Aircraft Emission Standards under part B of title II of the Act,

(iv) All other effective regulations in the State implementation plan for the period analyzed.

(5) The State shall retain all detailed calculations for inspection by the Administrator, and submit them at his request.

§ 51.43 Air quality maintenance area analysis: Allocation of emissions.

(a) For each AQMA and for each pollutant for which the AQMA is identified, the AQMA analysis shall contain an allocation of projected emissions to subcounty areas if the method used to project air quality concentrations required under § 51.44 of this part is not a proportional model. Except as otherwise provided under paragraph (c) of this section, the State shall use the techniques for allocating emissions to sub-county areas specified in "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 13, Allocating Projected Emissions to Sub-County Areas," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. (OAQPS No. 1.2–032); any subsequent revision or supersedure of this document shall take precedence over the existing document. The AQMA analysis shall indicate the order of analysis performed. An allocation of emissions shall be presented:

(1) For at least the fifth and tenth years following the date of the Administrator's identification of the AQMA and for the end of the applicable analysis period, if the AQMA analysis is used to determine the effect of growth and development on air quality under § 51.12 (g) (1) of this part;

(2) For the last year of the period for which the AQMA plan is designed to maintain the national standards and for any other preceding years the Administrator specifies, if the AQMA analysis is used to evaluate the effect of a control strategy in an AQMA plan submitted under § 51.12(g) (2) of this part.

(b) Completed Table 4.2, "Master Grid Emissions," contained in the document cited in paragraph (a) of this section and a map indicating the master grid shall be submitted with the AQMA analysis except as otherwise provided under paragraph (c) of this section; Table 4.2 shall present emission allocations for the years indicated in paragraph (a) of this section.

(c) A State may allocate projected emissions using techniques other than those specified in paragraph (a) of this section; where a State uses such alternative techniques, the following requirements shall be met:

(1) Prior to using alternative techniques, the State shall obtain approval to use these techniques from the Administrator pursuant to the procedures set forth in § 51.51 of this part.

(2) The alternative techniques shall be comparable in scope and level of detail of results to the techniques specified in paragraph (a) of this section.

(3) The AQMA analysis shall contain:

(i) An identification, complete description, and justification for the use of the techniques;

(ii) A summarization of the calculations used in allocating projected emissions;

(iii) A summarization of the emissions allocated to each subcounty area for the years specified in paragraph (a) of this section.

(4) The State shall retain all detailed calculations for inspection by the Administrator and submit them to the Administrator at his request.

§ 51.44 Air quality maintenance area analysis: Projection of air quality concentrations.

(a) (1) For each AQMA and for each pollutant for which the AQMA is identified, the AQMA analysis shall contain projections of air quality concentrations resulting from the emissions projected under § 51.42 of this part. Except as otherwise provided under paragraph (b) of this part, the State shall use the techniques for relating emissions to air quality concentrations specified in "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 12, Ap-

plying Atmospheric Simulation Models to Air Quality Maintenance Areas," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. (OAQPS No. 1.2-031); any subsequent revision or supersedure of this document shall take precedence over the existing document.

(2) For projection of air quality concentrations of particulate matter and sulfur dioxide, the Air Quality Display Model (AQDM) or an equivalent model shall be used where appropriate; where the State determines that these models are inappropriate, the State shall obtain concurrence on that determination from the Administrator.

(3) To determine short-term (24- and 3-hour) air quality concentrations for particulate matter and sulfur dioxide, the model used, if not a proportional model, shall provide for consideration of the short-term localized air quality impact of individual large point sources.

(4) A projection of air quality concentrations shall be presented:

(i) For at least the fifth and tenth years following the date of the Administrator's identification of the AQMA and for the end of the applicable analysis period, if the AQMA analysis is used to determine the effect of growth and development on air quality under § 51.12(g)(1) of this part;

(ii) For the last year of the period for which the AQMA plan is designed to maintain the national standards and for any other preceding years the Administrator specifies, if the AQMA analysis is used to evaluate the effect of a control strategy in an AQMA plan submitted under § 51.12(g)(2) of this part.

(b) A State may project air quality concentrations using techniques other than those specified in paragraph (a) of this section; where a State uses alternative techniques, the following requirements shall be met:

(1) Prior to using alternative techniques, the State shall obtain approval to use such techniques from the Administrator pursuant to the procedures set forth in § 51.51 of this part.

(2) The alternative techniques shall be comparable in scope and level of detail of results to the techniques specified in paragraph (a) of this section.

(3) The AQMA analysis shall contain an identification, complete description, and justification for the use of the techniques.

(4) The State shall retain all detailed calculations for inspection by the Administrator and submit them to the Administrator at his request.

(c) Air quality levels for the years specified in paragraph (a)(4) of this section shall be presented either in tabular form or as an isopleth map showing maximum pollutant concentrations and concentration gradients. Computer printouts of the input and output data associated with the use of an atmospheric simulation model shall be retained and made available for inspection by the Administrator.

§ 51.45 Air quality maintenance area plan: General.

(a) The AQMA plan shall:

(1) Provide for the maintenance of national standards for the pollutants for which the AQMA was identified for a period to be specified by the Administrator;

(2) Demonstrate that the measures contained in the AQMA plan are adequate to ensure that the national standards will be maintained for that period. In providing such a demonstration, the State shall follow the requirements of §§ 51.41 to 51.44, inclusive, of this part pertaining to the AQMA analysis.

(b) The State shall revise the AQMA plan on a schedule that the Administrator will establish to provide for continued maintenance of the national standards. The Administrator shall require a review of the AQMA plan at least every 5 years. The analysis associated with such review shall account for at least the following 10 years as provided under § 51.46 of this part.

(c) The AQMA plan shall be submitted in the general format indicated in Appendix S to this part.

(d) The air quality and emission baselines and the air quality and emission projection methods used in calculating the limitation of emissions obtained through the application of the maintenance measures shall be the same as those used in performing the AQMA analysis.

(e) The AQMA plan shall provide a detailed description of each revision to the existing State implementation plan that the AQMA plan effects, together with a list of any documents or portions of the plan that are being revised.

(f) Upon request of a State, the Administrator will provide preliminary review of the draft AQMA plan submitted in advance of the date the plan is due. Such requests shall be made as provided in § 51.5(c) of this part and shall not operate to relieve a State of its responsibility for adopting and submitting the AQMA plan in accordance with prescribed due dates.

(g) The State shall retain all detailed data and calculations and shall submit such to the Administrator at his request. Such data and calculations shall not be considered part of the applicable plan.

§ 51.46 Air quality maintenance area plan: Strategies.

(a) The AQMA plan shall contain the following:

(1) Measures as necessary to provide for the maintenance of the national standards for the pollutants for which the AQMA was identified, once such standards are attained. The Administrator will specify the period over which the AQMA plan shall maintain the national standards.

(2) Duly adopted enforceable rules and regulations that implement the measures that provide for maintenance of the national standards for a period to be specified by the Administrator.

(3) A description of each measure that is incorporated into the AQMA plan.

(4) A summary of the computations, assumptions, and judgments used to determine the reduction of emissions or reduction of the growth in emissions that will result from the application of the AQMA plan.

(5) A summary of emission levels expected to result from application of each measure of the control strategy. Where the quantification of the reduction in either emissions or growth in emissions resulting from a measure cannot be done with a substantial degree of precision, that measure may be combined with other similar measures and an aggregate effect estimated. The summary of emission levels expected to result from application of the control strategy shall be included as specified under § 51.42(b) of this part.

(6) A presentation of the air quality levels expected to result from application of the overall control strategy presented either in tabular form or as an isopleth map showing maximum pollutant concentrations and expected concentration gradients. The plan must provide these results for the last year of the period for which the AQMA plan is designed to maintain the national standards and for any other preceding years the Administrator specifies.

(7) A description of administrative procedures to be used in implementing each selected maintenance measure.

(8) A description of enforcement methods including, but not limited to, procedures for monitoring compliance with each of the selected maintenance measures, procedures for handling violations, and designation of enforcement responsibilities.

(9) Identification and responsibilities of the State and sub-state agencies designated under § 51.50(e) of this part to implement the AQMA plan in each AQMA.

(b)(1) The AQMA plan shall contain a discussion of the air quality maintenance problem in the AQMA for the period from the year to which the AQMA plan provides for maintenance of the national standards to the end of the longest period covered by any federally-sponsored plan that may have an air quality impact if:

(i) Any of the following federally-sponsored plans in the AQMA cover a period that extends beyond the 10-year period following the date on which the Administrator identified the AQMA:

(*a*) Transportation plans developed under the Federal Aid Highway Act of 1962;

(*b*) Comprehensive plans developed under section 701 of the Housing and Urban Development Act of 1965;

(*c*) Areawide waste water treatment plans developed under section 208 of the Federal Water Pollution Control Act of 1972;

(*d*) Any other federally-sponsored plan that may have an air quality impact; and

(ii) The AQMA plan does not provide for maintenance of the national standards for the period covered by such a federally-sponsored plan.

(2) The AQMA plan shall contain a discussion of the air quality maintenance problem in the AQMA for the period from the year to which the AQMA plan provides for maintenance of the national standards to the end of the 10-year period following the date on which the Administrator identified the AQMA if:

(i) No federally-sponsored plan specified under subparagraph (1)(i) of this paragraph in the AQMA covers a period that extends beyond the 10-year period following the date on which the Administrator identified the AQMA, and

(ii) The AQMA plan does not provide for maintenance of the national standards for the 10-year period following the date on which the Administrator identified the AQMA.

(3) The discussion of the air quality maintenance problem required under paragraphs (b) (1) and (2) of this section shall address the following:

(i) The kinds of control strategies that could be applied to solve the maintenance problem for the applicable time period and

(ii) The kinds of actions that would need to be taken to adopt the necessary laws or regulations in a timely manner.

(4) All rules and regulations that are necessary to maintain the national standards in an AQMA must be adopted in sufficient time before compliance is necessary to ensure the maintenance of the national standards. The State shall consult with the Administrator in determining what constitutes "sufficient time". When these rules and regulations are adopted, the State shall submit them as portions of the plan.

§ 51.47 Air quality maintenance area plan: Legal authority.

(a) The AQMA plan shall demonstrate that the State has adequate legal authority to implement any adopted measures that are submitted in the AQMA plan.

(b) The State is not required to have the legal authority to enforce measures contained in the AQMA plan if the State provides a demonstration that a local government or substate agency has the legal authority to enforce the measures specified in the AQMA plan subject to the provisions of paragraph (a) of this section.

§ 51.48 Air quality maintenance area plan: Surveillance.

(a) *Air quality surveillance*—(1) *Description of the existing monitoring network.* The AQMA plan shall contain a discussion of the adequacy of the existing network that is part of the applicable plan in meeting the air quality monitoring objectives of maintenance of air quality standards.

(2) *Description of proposed monitoring network.* The AQMA plan shall provide for the installation of any necessary additional monitoring sites and contain a description and installation schedule of any new monitoring sites proposed, if:

(i) The AQMA plan identifies monitoring deficiencies in the existing network that is described in the applicable plan, or

(ii) The Administrator determines that additional monitoring sites are needed in the AQMA.

(3) *Reporting of data from new monitors.* On a quarterly basis commencing with the reporting period following establishment of a new air quality monitor in an AQMA described under subparagraph (2) of this paragraph, the State agency shall report to the Administrator information on air quality from the new site. Data shall be reported and submitted in accordance with the procedures specified in § 51.7(a) of this part.

(b) *Source surveillance.* The AQMA plan shall contain a description of the source surveillance procedures, such as those required under § 51.46, paragraph (a)(8) of this part, to be followed under the AQMA plan beyond those contained in the existing applicable State implementation plan.

§ 51.49 Air quality maintenance area plan: Resources.

(a) The AQMA plan shall include:

(1) A description of the resources available to the State and local agencies and other offices and agencies that are involved and will participate in the implementation of the AQMA plan at the date of submission of the AQMA plan;

(2) A description of any additional resources needed to carry out the plan for the applicable period;

(3) A description of any revisions to the resources indicated in the applicable plan under § 51.20 of this part to account for the implementation of the AQMA plan; and

(4) Written assurances from the Governor or local government chief executive or both that they will actively seek additional resources needed to implement the AQMA plan, if any.

(b) Descriptions under paragraphs (a)(1) and (2) of this section for each AQMA shall be provided in a form similar to that in appendix T to this part and shall include projections of the extent to which resources will be acquired at the end of at least the first and last years of the period for which the AQMA plan is designed to maintain standards, and at any other time the Administrator specifies. Upon application by the State pursuant to the procedures set forth in § 51.51 of this part, the Administrator shall have the authority to modify the required form for submission of the descriptions required under this paragraph.

§ 51.50 Air quality maintenance area plan: Intergovernmental cooperation and coordination.

(a) The agency responsible for implementing national standards in any portion of an interstate AQMA shall furnish any available data on emissions, air quality, control strategy development, growth projections, and AQMA plan development upon request to any other State or local agency having such responsibility in any other portion of such interstate AQMA. Such data need not include data concerning specific source operating parameters and processes certified by the State to be confidential. Confidential data shall not be construed to include data on actual emissions to the atmosphere.

(b) The agency responsible for implementing national standards in any AQMA or portion of an AQMA shall consider which governmental institutions, such as those listed in appendix U to this part, should participate in the development and implementation of the AQMA plan and seek such participation wherever appropriate. Copies of written comments from governmental agencies on the AQMA plan shall be retained by the State for inspection by the Administrator and the public.

(c)(1) Where the lead responsibility for the development of an AQMA plan is assigned to the State air pollution control agency, and if that agency does not also have continuing responsibilities for the management of land use and transportation facilities, it shall consult with the appropriate agencies established to administer planning under section 701 of the Housing and Urban Development Act of 1965 (42 U.S.C. 3101), the appropriate urban transportation planning agencies established under the Federal Aid Highway Act of 1962 (23 U.S.C. 134) and the Urban Mass Transportation Act of 1964 (49 U.S.C. 1602), the appropriate agencies designated under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) and cognizant clearinghouses established under Office of Management and Budget Circular A-95, published in the FEDERAL REGISTER of November 28, 1973 (38 FR 32874), in the development of the AQMA plan.

(2) Where the lead responsibility for the development of an AQMA plan is assigned to a State-level agency that is not the air pollution control agency, that lead agency shall consult with the State air pollution control agency and appropriate local air pollution control agencies, the appropriate agencies established to administer planning under section 701 of the Housing and Urban Development Act of 1965 (42 U.S.C. 3101), the appropriate urban transportation planning agencies established under the Federal Aid Highway Act of 1962 (23 U.S.C. 134) and the Urban Mass Transportation Act of 1964 (49 U.S.C. 1602), the appropriate agencies designated under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) and cognizant clearinghouses established under Office of Management and Budget Circular A-95, published in the FEDERAL REGISTER of November 28, 1973 (38 FR 32874), in the development of the AQMA plan.

(3) The AQMA plan shall be developed in consultation with the agencies responsible for comprehensive local and areawide planning including, as a minimum, those responsible for areawide waste treatment management planning under Section 208 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1151), transportation planning under the Federal Aid

Highway Act of 1962 (23 U.S.C. 134) and the Urban Mass Transportation Act of 1964 (49 U.S.C. 1602), planning for coastal areas under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq). and comprehensive planning under section 701 of the Housing and Urban Development Act of 1965 (42 U.S.C. 3101).

(d) Where the State chooses to delegate authority for the development of all or a portion of an AQMA plan to one or more substate agencies, any agency delegated such authority shall:

(1) Have authority on its own or on behalf of local governments of general jurisdiction in the AQMA, to develop a plan covering the entire geographical area of its portion of the AQMA.

(2) Consult with the appropriate State and local air pollution control agencies in the development of the plan if the substate agency is not an air pollution control agency.

(3) Consult with the agencies established to administer planning under section 701 of the Housing and Urban Development Act of 1965 (42 U.S.C. 3101), the urban transportation planning agencies established under the Federal Aid Highway Act of 1962 (23 U.S.C. 134) and the Urban Mass Transportation Act of 1964 (49 U.S.C. 1602), the appropriate agencies designated under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) and cognizant clearinghouses established under Office of Management and Budget's Circular A-95, published in the FEDERAL REGISTER of November 28, 1973 (38 FR 32874), in the Development of the plan if the substate agency does not have continuing responsibility for the management of land use and transportation facilities.

(4) Give assurances that there will be adequate provision for participation of the public in the development of the plan.

(5) Agree that the State retains the ultimate responsibility for assuring compliance with the plan, except as otherwise provided under § 51.47(b) of this part pertaining to local governmental responsibility.

(e) The AQMA plan shall contain:

(1) An identification of the agency designated by the governor as primarily responsible for the implementation of the AQMA plan.

(2) An identification of other State agencies and substate agencies that have responsibilities in the implementation of the AQMA plan, a definition of their responsibilities, and assurances from each such agency that it will implement its responsibilities indicated in the plan.

(3) A description of the relationships between air quality management and State, regional, and local programs for:

(i) Land use management,

(ii) Transportation and parking management,

(iii) Water quality and solid waste management,

(iv) Other processes substantially affecting or affected by air quality management.

(4) A description of the existing and proposed relationships for coordinating the implementation of the AQMA plan, including further AQMA plan development, with the development and implementation of comparable plans in any adjoining AQMA in the State or adjoining State.

(f) Each AQMA plan shall provide assurances that the State agency having primary responsibility for implementing national standards in any AQMA or portion thereof will promptly transmit to other State and local agencies having similar or related responsibility in the same or other States and any other State agency that participated in the development and implementation of the AQMA plan information on factors (e.g., construction of new stationary or indirect sources) which may substantially affect air quality in any portion of any adjoining region.

(g) The AQMA plan shall not conflict with the applicable requirements of the Federal Water Pollution Control Act Amendments of 1972 (33 USC 1151), or any subsequent amendments thereto.

(h)(1) Prior to submission to EPA, the State shall submit the AQMA plan for review and comment for a period of thirty days to the cognizant clearinghouses as established under Office of Management and Budget Circular A-95, published in the FEDERAL REGISTER of November 28, 1973 (38 FR 32874). Comments received from the clearinghouses within that 30-day period shall be considered before the AQMA plan is submitted to EPA. Copies of these comments shall be retained by the State for inspection by the Administrator and the public.

(2) The State shall submit any substantial regulatory revisions to the AQMA plan for review and comment to the cognizant A-95 clearinghouse in a manner similar to that under paragraph (h)(1) of this section.

§ 51.51 Modification of certain requirements.

(a) Whenever a State applies for a modification to the requirements of this part as permitted by §§ 51.12(g)(1)(i), 51.41(j), 51.42(c)(1), 51.43(c)(1), 51.44(b)(1), and 51.49(b) of this part, the following requirements shall apply:

(1) The State shall apply for the modification in writing to the Administrator; the application shall include a statement of reasons why a modification would be appropriate.

(2) Modifications shall be considered on a separate AQMA-by-AQMA basis.

(3) The Administrator may grant a modification if he determines in his judgment that such a modification would be appropriate in the circumstances of the particular case presented, considering such factors as the air quality problems, financial and manpower limitations, administrative feasibility, and existing commitments by the State.

(4) The Administrator shall act upon a request for modification within 45 days after receipt of a properly prepared and filed request.

(5) The Administrator shall publish his determination on and a description of each modification request in the FEDERAL REGISTER.

(6) The State shall not propose its AQMA analysis or AQMA plan (as the case may be) for public hearing within the State until the Administrator has acted upon the State's application pursuant to paragraph (a)(5) of this section.

(7) When the State provides notice of its public hearing(s) pursuant to the requirements of section 51.4(b) of this part, the State shall recite in its notice the extent to which the Administrator has modified the requirements of this part.

(b) Whenever the Administrator proposes his own AQMA plan provisions, he may also modify, on an AQMA-by-AQMA basis, the requirements of this part as permitted by §§ 51.12(g)(1)(i), 51.41(j), 51.42(c)(1), 51.43(c)(1), 51.44(b)(1), and 51.49(b) of this part. For each such modification, the Administrator will, when he publishes notice of his proposed AQMA plan provision in the FEDERAL REGISTER recite in such notice the extent to which he has modified the requirements of this part.

8. Appendices S, T, and U are added as follows:

APPENDIX S—AQMA PLAN FORMAT

The AQMA plan shall be submitted in the following format:

1. *Introduction.*

1.1 *Designation of AQMA.* The geographical definition of the AQMA and the pollutants for which designated.

1.2 *Summary of the AQMA plan.*

1.1.1 Reason why plan is necessary.

1.1.2 Results of the AQMA analysis.

1.1.3 List of control measures employed.

1.1.4 Legal authority needs.

1.1.5 Brief description of air quality and source surveillance needs.

1.1.6 Resource needs.

1.1.7 Brief description of intergovernmental coordination aspects.

2. *AQMA analysis.* Demonstrations and information that may be required under §§ 51.41, 51.42, 51.43 and 51.44 of this part.

3. *AQMA control strategies.* Demonstrations and information required under §§ 51.45 and 51.46 of this part.

4. *Legal authority.* Demonstrations and information required under § 51.47 of this part.

5. *Surveillance.* Information required under § 51.48 of this part.

6. *Resources.* Information required under § 51.49 of this part.

7. *Intergovernmental cooperation and coordination.* Information required under § 51.50 of this part.

8. *Miscellaneous.* Certification that public hearings were held pursuant to § 51.4 of this part.

APPENDIX T.—*Agency functions for air quality maintenance area plans—Funds estimates by function for the _____ AQMA in the State of _____ for the year _____*

Agencies [1]—Control measures	State air pollution control agencies	Local air pollution control agencies	Implementation plan review agencies (A–95, 3–C)	Planning Agencies	Transportation agencies	Other (water control, public works, etc.)
Measure a						
Measure b						
Measure m						
Total funds						

[1] Specific agencies should be identified in a narrative attachment.

NOTE.—Report funds as $1,000.

APPENDIX T—*Agency functions for air quality maintenance area plans. Man-year estimates by function for the _____ AQMA in the State of _____ for the year _____*

Agencies [1]—Control measures	State air pollution control agencies	Local air pollution control agencies	Implementation plan review agencies (A–95, 3–C)	Planning agencies	Transportation agencies	Other (water control, public works, etc.)
Measure a						
Measure b						
Measure m						
Total						

[1] Specific agencies should be identified in a narrative attachment.

APPENDIX U—GENERAL LIST OF INSTITUTIONS AND OFFICES OF STATE, REGIONAL, AND LOCAL GOVERNMENT WHICH SHOULD BE CONSIDERED FOR PARTICIPATION IN AQMA PLAN DEVELOPMENT AND IMPLEMENTATION

STATE

Governor's Office
State Office of Planning
Environmental Agency
Water Quality Board
Department of Health
State Recreation Department
Regional Office of Air Quality (part of State Environmental Agency or Department of Health)
Department of Transportation
Highway Administration
Department of Urban Development and Housing
Office of Intergovernmental Relations
Office of Economic Development

REGIONAL

Air Quality Control Agency
Regional Planning Council
Council of Governments
Land-Use Planning Department
Environmental Quality Agency
Transportation Planning Department
Economic Development Planning Department
Recreation and Open Space Planning Department
Citizens and Agency Air Quality Review or Advisory Committee (Task Force)
Water Quality Control Boards
Area-Wide Waste Water Treatment Planning Agencies (established under section 208 of the Federal Water Pollution Control Act Amendments of 1972)

LOCAL

Air Quality Control Agency
Chief Executive of the City and County Local Board or Committee charged with responsibility for activities in the conduct of the urban transportation planning process (3–C process)
Municipal (City, County, Township) elected officials
Municipal Planners (community, transportation, environmental, parks, and recreation)
Local Departments (health, water and sewer, solid waste disposal)
Local Development Offices
Local Zoning Administrators

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